

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in view of the present amendment and in light of the following discussion, is respectfully requested.

Claims 31-60 are pending. By the present amendment, Claims 31-35 and 37-60 are amended. It is respectfully submitted that the present amendment finds support in the original specification and drawings, for example, at page 8, lines 24-27 and page 15, lines 17-22. Thus, it is respectfully submitted that no new matter is added.

In the outstanding Office Action, the drawings were objected to; Claims 41-50 were rejected under 35 U.S.C. § 112, second paragraph; Claims 41 and 51 were rejected under 35 U.S.C. § 102(e) as anticipated by Schmidt (U.S. Patent No. 6,491,599); and Claim 31 was rejected under 35 U.S.C. § 103(a) as unpatentable over Holmes et al. (U.S. Patent No. 6,527,658, hereinafter “Holmes”) in view of Bezian et al. (U.S. Publication No. 2005/0064974, hereinafter “Bezian”).

Claims 32-40 and 52-60 were objected to as being dependent upon a rejected base claim, but indicated as including allowable subject matter, and Claims 42 and 50 were indicated as allowable if rewritten to overcome the rejection under 35 U.S.C. § 112, second paragraph, and to be in independent form. Applicants acknowledge with appreciation the indication of allowable subject matter. However, since Applicants consider that Claims 31, 41, and 51, from which Claims 32-40, 42-50, and 52-60 respectively depend, define patentable subject matter, Claims 32-40, 42-50, and 52-60 are maintained in dependent form at the present time.

In response to the objection to the drawings, corrected drawing sheets are submitted herewith. Additionally, new drawing sheets including Figures 3, 4, and 8 are also submitted herewith. It is noted that Figures 3, 4, and 8 were originally filed in the International Application (PCT/FR2003/003317), but were inadvertently omitted in the national stage

application. As the present application entered the national stage from PCT/FR2003/003317, a copy of which was filed in this application, it is respectfully submitted that Figures 3, 4, and 8 were part of the original disclosure and do not constitute new matter. Therefore, Applicants respectfully request that the outstanding objection to the drawings be withdrawn.

Turning now to the outstanding rejection of Claims 41-50 under 35 U.S.C. § 112, second paragraph, it is noted that Claim 41 is amended to recite;

a third epicyclic gearset in series with one of the two epicyclic gearsets on one of the two power trains, the third epicyclic gearset cooperating with the adjusting means such that, in a first mode of operation, a sun gear, a ring gear, and a planet carrier of the third gearset are spinning at the same speed.

As explained in the originally filed specification, for example, at page 15, lines 17-22, when the clutch is closed, the sun gear and planet gear of the third epicyclic gearset are blocked or joined together, such that the third epicyclic gearset revolves as a block. Thus, all elements of the third epicyclic gearset (the sun gear, the ring gear, and the planet carrier) spin at the same speed such that the third epicyclic gearset does not induce any speed step down ratio.

Therefore, in view of the amendment to Claim 41, and the explanation in the specification, it is respectfully submitted that Claims 41-50 are definite and no further rejection on that basis is anticipated. However, if the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work with the Examiner in a joint effort to drive mutually acceptable language.

Turning now to the outstanding rejections under 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a), Applicants respectfully request reconsideration of these rejections and traverse the rejections, as discussed next.

Claim 41 recites, *inter alia*, a power-splitting infinitely variable transmission with two modes of operation, including “a third epicyclic gearset in series with one of the two

epicyclic gearsets on one of the two power trains, the third epicyclic gearset cooperating with the adjusting means such that, in a first mode of operation, a sun gear, a ring gear, and a planet carrier of the third gearset are spinning at the same speed.” Therefore, when the clutch is closed, the infinitely variable transmission is in a second mode such that all elements of the third epicyclic gearset (the sun gear, the ring gear, and the planet carrier) spin at the same speed such that the third epicyclic gearset does not induce any step down ratio.¹

Schmidt describes a vehicle transmission including multiple planetary gearsets (for example, reference numerals 88, 90, 92, 94, 96, and 98 in Figure 1).² The outstanding Office Action, in section 6 on page 3, takes the position that column 16, lines 28-30 of Schmidt equates to the claimed “third epicyclic gearset.”

However, it is respectfully submitted that Schmidt does not disclose or suggest “a third epicyclic gearset in series with one of the two epicyclic gearsets on one of the two power trains, the third epicyclic gearset cooperating with the adjusting means such that, in a first mode of operation, a sun gear, a ring gear, and a planet carrier of the third gearset are spinning at the same speed,” as recited in amended Claim 41.

Instead, Schmidt describes that the sun gear 170 of the third power distributing planetary gear subset 92 can be grounded to the housing 72 such that the carrier 176 and the planetary gear subset is walked by rotation of the ring gear 168 along the rotatably grounded sun gear 170.³ However, as discussed above the sun gear, the ring gear, and the planet carrier of the claimed third epicyclic gearset all spin at the same speed. Schmidt describes that while the carrier in the planetary gearset is walked, the sun gear is grounded to the housing such that the sun gear does not rotate at all. Therefore, the sun gear and the planetary gearset described in Schmidt do not all spin at the same speed. Thus, the third power distributing

¹ See the original specification, at page 15, lines 8-22.

² See Schmidt, in Figure 1, along with the corresponding description.

³ See Schmidt, at column 16, lines 28-31.

planetary gearset 92 described in Schmidt is not the “third epicyclic gearset” recited in amended Claim 41.

Therefore, it is respectfully submitted that Schmidt does not disclose or suggest every feature recited in amended Claim 41. Thus, it is respectfully requested that the outstanding rejection of Claim 41 as anticipated by Schmidt be withdrawn.

Claim 51 recites, *inter alia*, a power-splitting infinitely variable transmission with two modes of operation, including “a first compound gearset configured to connect the internal combustion engine to the vehicle wheels along a first power-splitting train and “the internal combustion engine is connected to a first epicyclic gearset of the first compound gearset.”

Schmidt describes that an engine 12 has an output shaft 20 that is connected to an engine output drive gear 24 which is meshingly engaged with a power input gear 28.⁴ Schmidt further describes that the power input gear 28 is connected to a transfer gear 32 via a transfer shaft 26 and the transfer gear 32 is connected to the transmission 10 through an idler gear 34.⁵

However, it is respectfully submitted that Schmidt does not disclose or suggest “the internal combustion engine is connected to a first epicyclic gearset of the first compound gearset,” as recited in amended Claim 51.

Instead, as discussed above, the engine 12 is directly connected to an engine output drive gear 24 that is meshingly engaged with a power input gear 28 which is connected to a transfer gear 32. As can be seen in Figure 1, the engine output drive gear 24, the power input gear 28, and the transfer gear 32 are not a part of a first compound gearset. Thus, Schmidt does not describe that the engine 12 is connected to a first epicyclic gearset of the first compound gearset.

⁴ See Schmidt, at column 4, lines 47-57 and Figure 1.

⁵ See Schmidt, at column 4, lines 47-57 and Figure 1.

Therefore, it is respectfully submitted that Schmidt does not disclose or suggest every feature recited in Claim 51. Thus, it is respectfully requested that the outstanding rejection of Claim 51 as anticipated by Schmidt be withdrawn.

Claim 31 recites, *inter alia*, a power-splitting infinitely variable transmission with two modes of operation, including, “a primary power train on which there is disposed a compound gearset including a first epicyclic gearset and a second epicyclic gearset” and “the internal combustion engine is connected via a reducing stage to a ring gear of the first epicyclic gearset and to a planet carrier of the second epicyclic gearset of a gearbox.”

Holmes describes a transmission 210 including a first planetary gearset 220 and a second planetary gearset 232.⁶ Holmes also describes that the engine 212 is connected to the first planetary gear subset 220 via the ring gear 222 of the first compound planetary gear subset 220.⁷

However, it is respectfully submitted that Holmes does not disclose or suggest “the internal combustion engine is connected via a reducing stage to a ring gear of the first epicyclic gearset and to a planet carrier of the second epicyclic gearset of a gearbox,” as recited in amended Claim 31.

Instead, as can be seen in Figure 3 of Holmes, the engine 212 is only connected to a ring gear 222 of the first compound planetary gear subset 220 and is not connected to the second compound planetary gear subset 232. Thus, Holmes does not describe that the engine 212 is connected to a carrier 240 of the second planetary gear subset 232.

Bezian was cited in the outstanding Office Action, in section 8 on page 6, as describing “a transmission having two electric motors 3, 4 connected through two planetary gears 5, 6 to an engine 1. The engine 1 is connected in parallel to the wheels 2.” It is respectfully submitted that Bezian does not describe that the engine 1 is connected via a

⁶ See Holmes, at column 11, line 43 to column 12, line 37 and Figure 3.

⁷ See Holmes, at column 11, line 56 to column 12, line 10 and Figure 3.

reducing stage to a ring gear of the first epicyclic gearset and to a planet carrier of the second epicyclic gearset of a gearbox.

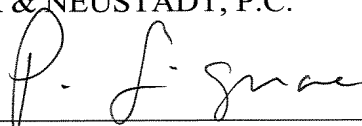
Therefore, even assuming the combination to be proper, it is respectfully submitted that the combination of Holmes in view of Bezian does not disclose or suggest every feature recited in amended Claim 31. Thus, it is respectfully requested that the outstanding rejection of Claim 31 as unpatentable over Bezian in view of Holmes be withdrawn.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. A Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

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